VITA AND PUBLICATIONS

Corinna Gries

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Address: Citizen: Germany

University of Wisconsin

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Education:

Christian-Albrechts-University Kiel Diplom (ca. M.S.) 1985 Botany

Christian-Albrechts-University Kiel Ph.D. 1988 Botany

Arizona State University Post Doctoral Associate 1988 - 1990

Honors:

Ph.D. awarded with magna cum laude

Professional Experience:

current Distinguished Scientist, Center for Limnology, University of Wisconsin, Madison; Lead Information Manager North Temperate Lakes LTER.

2007 - 2009 Associate Research Professor, Global Institute for Sustainability, Director of Information Management

2002 - 2007 Academic Associate, Center for Environmental Studies, CAP LTER Information Manager.

1994 - 2002 Assistant Research Professor with teaching responsibilities, Department of Plant Biology & Center for Environmental Studies, Arizona State University

Internship coordinator Plant Biology

Data manager ASU Lichen Herbarium, CAP LTER Survey 200

1993, 1995,

1999 research with Dr.J.Kesselmeier Max Planck Institute for Biogeochemistry in Mainz, Germany

1993 research with Dr. M.J. Sanz Sanchez Centro Estudios Ambientales de Mediterráneo, Valencia, Spain.

1990 - 1994 Faculty Associate, Arizona State University, Dept. of Plant Biology

Information Management related technical skills:

Database Platforms: Microsoft SQL Server, MySQL, PostgreSQL, Microsoft ACCESS, eXist

Programming Languages: Visual Basic, Java, R statistics

Web Technologies: PHP, Java Script, HTML

XML Technologies: XML, XSLT, XQuery, XML Schema

Some experience in ESRI, Google and other GIS/mapping applications

Service:

Member of several PhD committees, Member of University Technology committee, guest editor for Ecological Informatics, NSF review panelist, Swedish Academy of Sciences review panelist, outside reviewer for the European Research Council, member LTER executive board, member LTER Information Management executive committee, Chair of the LTER Information Management committee, LTER site reviews, Editorial Board of Bioscience, Advisory group for Oak Ridge National Lab Distributed Active Archive Center (ORNL DAAC), Advisory Board National Socio-Environmental Synthesis Center (SESYNC).

Since 2002 I have organized numerous data management training workshop, information managers annual meetings, and research project workshops funded by NSF. I have been on steering and program committees for major conferences.

Classes taught at ASU:

Plant Ecology (420)

Fundamentals in Ecology (320)

Ecology and Conservation (300)

Ecological Implications of Food Production (460)

Thesis and Dissertation:

Diplom: Microclimate and plant water relations in a hedge in Schleswig-Holstein (Germany).

Ph.D.: Growth, nutrient and heavy metal uptake, and oxygen release into the rhizosphere of *Phragmites australis* growing in a biological waste water treatment plant.

Publications:

Journal Articles:

C.Gries, R.Lösch, L.Kappen 1986: Untersuchungen zum pflanzlichen Wasserhaushalt von *Corylus avellana* in einer holsteinischen Wallhecke, Verh. d. Ges. f. Ökologie Gießen, Band 16.

C.Gries, R.Kretzschmar, J.Rambow, M.Vollbrecht, M.Wegener 1988: Erfahrungen mit einer Pflanzenkläranlage. Zeitschrift für Wasser und Boden 5: 269-273.

C.Gries, D.Garbe 1989: Biomass, and nitrogen, phosphorus and heavy metal content of *Phragmites australis* during the third growing season in a root zone waste water treatment. Archiv für Hydrobiologie 117: 97-105.

C.Gries, L.Kappen, R.Lösch 1989: Mechanism of flood tolerance in reed, *Phragmites australis* (Cav.) Trin. ex Steudel. New Phytologist 114: 589-593.

C.Gries, R.Kretzschmar, P.Widmoser 1991: Die Bedeutung von *Phragmites australis* für die Abwasserbehandlung in einer Wurzelraumanlage. Zeitschrift für Wasser und Boden 8: 280-295.

M.J.Sanz, C.Gries, T.H.Nash III 1991: Lichens do Exhibit dose Response relationships to SO2 fumigation: experiments with *Evernia prunastri* and *Ramalina fraxinea*, New Phytologist 122: 313-319.

C.Gries, S.B.Idso, B.A.Kimball 1993: Nutrient uptake by sour orange trees growing in ambient and elevated atmospheric CO2 concentrations during the course of a year, Journal of Plant Nutrition 16: 129-147.

C.Gries, T.H.Nash III, J.Kesselmeier 1994: Exchange of reduced sulfur gases between lichens and the atmosphere. Biogeochemistry 26: 1-15.

C.Gries, M.-J.Sanz, T.H.Nash III 1995: The effect of SO2 fumigation on CO2 gas exchange, chlorophyll fluorescence and chlorophyll degradation in different lichen species from western North America. Cryptogamic Botany 5: 239-246.

T.H.Nash III, C.Gries 1995: The response of lichens to atmospheric deposition with an emphasis on the Arctic. Science of the Total Environment 160/161: 737-747.

T.H.Nash III, C.Gries 1995: The use of lichens in atmospheric deposition studies with an emphasis on the Arctic. Science of the Total Environment160/161: 729-736.

T.H.Nash III, J.A.Elix, C.Gries 1995: A reivision of the lichen genus *Xanthoparmelia* in South America. Bibliotheca Lichenologica, J.Cramer, Berlin Stuttgart. Band 56. pp. 157.

C.Gries, J.G.Romagni, T.H.Nash, U.Kuhn, J.Kesselmeier 1997: The relation of H2S release to SO2 fumgation in lichens. The New Phytologist 136: 703-711.

M.A.Thomas, T.H.Nash III, C.Gries, 1997: Ecophysiological comparison of two tropical/subtropical lichen species: *Dictyonema glabratum* from an alpine habitat and *Coenogonium interplexum* from a lowland forest. In: Kappen, L. (ed.) New Species and Novel Aspects in Ecology and Physiology of Lichens. In honour of O.L.Lange. Bibliotheka Lichenologica, J.Cramer, Berlin Stuttgart,67: 183–195.

S.J.Goldsmith, M.A.Thomas, C.Gries, 1997: A new Technique for photobiont culturing and manipulation. Lichenologist 29: 559–569.

C.Gries, M.-J.Sanz, J.G.Romagni, S.J.Goldsmith, U.Kuhn, J.Kesselmeier T.H.Nash, 1997: The uptake of gaseous sulphur dioxide by non-gelatinous lichens. The New Phytologist 135: 595-602.

J.G.Romagni, C.Gries, T.H.Nash III 1997: Assessment of fire damage to epiphytic lichen flora in southeastern Arizona. The Bryologist 100: 102-108

Zambrano, A., T.H.Nash III, and C.Gries, 1999: Physiological effects of the Mexico City atmosphere on lichen transplants on oaks. Journal of Environmental Quality 28: 1548-1555.

A.Zambrano, T.H. Nash III, & C.Gries, 2000: Response of *Ramalina farinacea* (L.) Ach. to transplanting in southern California and to gaseous formaldehyde. Bibliotheca Lichenologica 75: 219-230. (ed. B Schroeter, M. Schlensog & T.G.A. Green)

W.C.Davis, C.Gries, & T.H.Nash III, 2000: The ecophysiological response of the aquatic lichen *Hydrothyria venosa* to nitrate in terms of weight and photosynthesis over long periods of time. Bibliotheca Lichenologica 75: 201-208. (ed. B Schroeter, M. Schlensog & T.G.A. Green)

J.G. Romagni, C. Gries, 2000: **Post-fire recolonization of dominant epiphytic lichen species on *Quercus hypoleucoides* (Fagaceae)** American Journal of Botany **87:** 1815-1820.

U.Kuhn, A.Wolf, C.Gries, T.H.Nash. III, J.Kesselmeier, 2000: Field measurements on the exchange of carbonyl sulfide between lichens and the atmosphere. Atmospheric Environment 34: 4867-4878.

T.H.Nash III, M.Thomas, J.K.Hoober, C.Gries, S.-X.Zheng, 2001: Free amino acids in lichens and their symbionts. Bibliotheca Lichenologia 78: 313-319.

# T.H.Nash III, C.Gries, 2002: Lichens as Bioindicators of Sulfur Dioxide. Review article Symbiosis 33: 1-21.

# T.H.Nash III, C.Gries, G.Rambold, 2002: Lichen floras: Past and future for North America. Invited Essay: New Frontiers in Bryology and Lichenology. Bryologist 105: 635-640.

W.C.Davis, C.Gries,T.H.Nash III, 2003: The influence of temperature on the weight and net photosynthesis of the aquatic lichen *Peltigera hydrothyria* over long periods of time. Bibliotheka Lichenologica. 86: 233 – 242.

T.Zschau, S.Getty, C.Gries, Y.Ameron, Z.Zambrano, T.H.Nash III, 2003: Historical and current atmospheric deposition to the epilithic lichen Xanthoparmelia Maricopa County, Arizona. Environmental Pollution 125: 21–30.

T.H.Nash III, C.Gries, T.Zschau, S.Getty, Y.Ameron, A.Zambrano, 2003: Historical patterns of metal atmospheric deposition to the epilithic lichen Xanthoparmelia in Maricopa County, Arizona, U.S.A. Journal de Physique IV, France 107: 921–923.

J.R.Cousins, D Hope, C.Gries, J.C.Stutz, 2003: Preliminary assessment of arbuscular mycorrhizal fungal diversity and community structure in an urban ecosystem. Mycorrhiza 13: 319–326.

D.Hope, C. Gries, W. Zhu, W. F. Fagan, C. L. Redman, N. B. Grimm, A. L. Nelson, C. Martin, A. Kinzig. 2003: Socioeconomics drive urban plant diversity. Proceedings of the National Academy of Sciences of the United States of America.100: 8788-8792. Online: <http://www.pnas.org/cgi/doi/10.1073/pnas.1537557100>

D. Hope, Gries, D., Warren, P., Katti, M., Stuart, G., Oleson, J., Kaye, J. 2005: How do humans restructure the biodiversity of the Sonoran desert? In: Connecting Mountain Islands and Desert Seas: Biodiversity and Management of the Madrean Archipelago II, 2004 May 11-15, Tucson, AZ. USDA Forest Service Proceedings RMRS-P-26: 189-194 (Fort Collins, CO).

D. Hope, W. Zhu, C. Gries, J. Oleson, J. Kaye, N.B. Grimm, L. Baker, D. Jenerette. 2005: Spatial variation in inorganic soil nitrogen across an arid urban ecosystem. UrbanEcosystems 8: 251-273.

P. McCartney, Schroeder, R. and Gries, C. 2005: Loose coupling of distributed data and models through Web Services. In: J. Frew (ed.) Proceedings 17th International Conference, Scientific and Statistical Database Management, Santa Barbara: 79–82. <http://2005.ssdbm.org/>

G. Stuart, C. Gries and D. Hope, 2006: The relationship between pollen and extant vegetation across an arid urban ecosystem and surrounding desert in the southwest USA. Journal of Biogeography 33: 573-591.

W.X. Zhu, D. Hope, C. Gries and N.B. Grimm, 2006: Soil characteristics and the accumulation of inorganic nitrogen in an arid urban ecosystem. Ecosystems 9: 711-724.

J. Oleson, D. Hope, C. Gries and J. Kaye, 2006: Estimating soil properties in heterogeneous land-use patches: A Bayesian approach. Environmetrics 17: 517-525.

E. Wentz, W. Stefanov, C. Gries and D. Hope, 2006: Land use and land cover mapping from diverse data sources for an arid urban environments. Computers, Environment and Urban Systems 30: 320-246.

D. Hope, C. Gries, D. Casagrande, C.L. Redman, C. Martin and N.B. Grimm, 2006: Drivers of spatial variation in plant diversity across the central Arizona-Phoenix ecosystem. Society and Natural Resources 19: 101-116.

Lewis, D.B., J.P. Kaye, C. Gries, A.P. Kinzig and C.L. Redman, 2006: Agrarian legacy in soil nutrient pools of urbanizing arid lands. Global Change Biology 12: 1-7.

Buyantuyev A., J.Wu, C.Gries, 2006. Estimating vegetation cover in an urban environment based on Landsat ETM+ imagery: A case study in Phoenix, USA International Journal of Remote Sensing 28: 269-291.

N. Kaplan, C. Gries, K. Baker, D. Henshaw, T. Valentine, J. Vande Castle 2007: Information Management Committee: GIS, Technology, and Changing Organizational Structures. LTER Databits Spring 07. <http://intranet.lternet.edu/archives/documents/Newsletters/DataBits/07spring/#1nb>

Majumdar A., Kaye, J., Gries, C., Hope, D., Grimm, N.B., 2007: Hierarchical spatial modeling and prediction of multiple soil nutrients and carbon concentrations. Communications in Statistics -- Simulation and Computation 37:434-453. DOI:10.1080/03610910701792588

S. Subramanya, Li, B., Gries, C., Liu, H. 2007: Selecting Complementary Features from Multiple Data Sources for Information Integration”, Technical Report, TR-07-009, School of Computing Informatics, Arizona State University, Tempe, AZ 85287.

J. Kaye, A. Majumdar, C. Gries, A. Buyantuyev, N.B. Grimm, D. Hope, W. Zhu, G.D. Jenerette and L. Baker, 2008: Hierarchical Bayesian scaling of soil properties across urban, agricultural and desert ecosystems. Ecological Applications 18:132-145.

San Gil I., W. Sheldon, T. Schmidt , M. Servilla, R. Aguilar, C. Gries, T. Gray, D. Field, J. Cole, J. Yun Pan, G. Palanisamy, D. Henshaw, M. O'Brien, L. Kinkel, K. McMahon, R. Kottman, J. Brunt and W. K. Michener. 2008: Defining linkages between the GSC and NSF's LTER program: How does the Ecological Metadata Language relate to GCDML and other outcomes. OMICS: A Journal of Integrative Biology 12: 151-156

H. V. Nguyen, Gries, C., Davulcu, H. 2008 Improving the Basic Keyword Search for Datasets by Employing Text Mining Techniques and Indexing. LTER DataBits Spring 2008. <http://databits.lternet.edu/index.php/databits/article/viewFile/11/6>

C. Gries, Jacobs, K., Otte, W.-D., Vazquez, R., Abraham, J., Aguilar, R., McGill, J. Bhargav, S., Nguyen, H. 2008: The Arizona Hydrologic Information System. In: D. Maidment (ed.) GIS and Water Resources. Proceedings of the American Water Resources Association 2008 Spring Specialty Conference.

J.S., Walker, N.B. Grimm, J.M. Briggs, C. Gries and L. Dugan. 2009: Effects of urbanization on plant species diversity in central Arizona. Frontiers in Ecology and the Environment 7: 465-470.

San Gil, I., K. Baker, J. Campbell, E.G. Denny, K. Vanderbilt, B. Riordan, R. Koskela, J. Downing, S. Grabner, E. Melendez, J. Walsh, M. Kortz, J. Conners, L. Yarmey, N. Kaplan, E. Boose, L. Powell, C. Gries, R. Schroeder, T. Ackerman, K. Ramsey, B. Benson, J. Chipman, J. Laundre, H. Garritt, D. Henshaw, B. Collins, C. Gardner, S. Bohm, M. O'Brien, J. Gao, W. Sheldon, S. Lyon, D. Bahauddin, M. Servilla, D. Costa, J. Brunt, 2009: The Long-Term Ecological Research community metadata standardisation project: a progress report. International Journal of Metadata, Semantics and Ontologies 4: 141-153

Buyantuyev, A., Wu, J., Gries, C. 2010: Multiscale analysis of the urbanization pattern of the Phoenix metropolitan landscape of USA: Time, space and thematic resolution. Landscape and Urban Planning Volume 94: 206-217

R. Aguilar, Pan, J., Gries, C., San Gil, I., Palanisamy, G. 2010: A Flexible Online Metadata Editing and Management System. Ecological Informatics 5: 26-31.

Jones, M.B., Gries, C., 2010: Advances in environmental information management, Ecological Informatics 5:1-2.

Majumdar, A., Gries, C. Bivariate zero-inflated regression for count data: A Bayesian approach with Application to Plant Counts. 2010. International Journal of Biostatistics. 6: Iss. 1, Article 27 DOI: 10.2202/1557-4679.1229.

Nash III, T.H., Gries, C. and Gilbert, E. 2010: The consortium of North American lichen herbaria: a virtual flora using the SYMBIOTA framework. Bibliotheca Lichenologica 105: 57-64. In Biology of Lichens - Symbiosis, Ecology, Environmental Monitoring, Systematics and Cyber Applications, Eds. Thomas H. Nash III, Linda Geiser, Bruce McCune, Dagmar Triebel, Alexandru M.F. Tomescu and William B. Sanders, pp. 256.

Gries, C., Inigo San Gil, Kristin Vanderbilt, and Hap Garrit, 2010: Drupal developments in the LTER Network, Databits spring issue, <http://databits.lternet.edu/spring-2010/drupal-developments-lter-network>

Majumdar, A.; Gries, C.; Walker, J., 2011: A non-stationary spatial generalized linear mixed model approach for studying plant diversity. Journal of Applied Statistics 38: 1935-1950.

Jones, M.B., Gries, C. (eds.), 2011: Proceedings of the Environmental Information Management Conference 2011 (EIM 2011). University of California, Santa Barbara, doi:10.5060/D2NC5Z4X

Gries, C., Porter, J.H., 2011: Moving from custom scripts with extensive onstructions to a Workflow System: Use of the Kepler Workflow Engine in environmental information management. In: Jones, M.B., Gries, C. (eds.), Proceedings of the Environmental Information Management Conference 2011. University of California, Santa Barbara, doi:10.5060/D2NC5Z4X

Henshaw, D., Gries, C., Rustad, L. 2011: LTER members participate in the Environmental Sensor Network Workshop at Hubbard Brook. DataBits http://databits.lternet.edu/fall-2011/lter-members-participate-environmental-sensor-network-workshop-hubbard-brook

Robertson, G.P., Brokaw, N., Collins, S.L., Ducklow, H.W., Foster, D.R., Gragson, T.L., Gries, C., Hamilton, S.K., McGuire, A.D., Moore, J.C., Stanley, E.H., Waide, R.B., and Williams, M.W. 2012: Long-Term ecological research in a human-dominated world. BioScience 62: 342-353.

Campbell, J. L., L. E. Rustad, J. H. Porter, J. R. Taylor, E. W. Dereszynski, J. B. Shanley, C. Gries, D. L. Henshaw, M. E. Martin, W. M. Sheldon, E. R. Boose 2013: Quantity is nothing without quality: Automated QA/QC for streaming environmental sensor data. BioScience. 63: 574 – 585.

Henshaw, D., C. Gries, 2013: Sensor networks training conducted at LNO. LTER DataBits Spring 2013 <http://databits.lternet.edu/spring-2013/sensor-networks-training-conducted-lno>

Gries, C., Sheldon, W., Fountain, T., Sebranek, C., Miller, M., Tilak, S., 2013, Integrating open source Data Turbine with the GCE Data Toolbox for MATLAB. LTER Data Bits, Spring 2013, <http://databits.lternet.edu/spring-2013/integrating-open-source-data-turbine-gce-data-toolbox-matlab>

San Gil, I. K. Vanderbilt, C. Gries, J. McGann, M. White, E. Melendez-Colom, A. Stephenson, J. Laundre, H. Garritt, K. Ramsey, P. Tarrant, R. Raub, D. Julian, C. C. Lin, D. Blankman, A. Lopez, C. Takacs-Vesbach, Palantir.net and D. Reid, 2013: Opening the data vault with the Drupal Ecological Information Management System. LTER Databits, Fall 2013: <http://databits.lternet.edu/fall-2013/opening-data-vault-drupal-ecological-information-management-system>

Rüegg, J. C. Gries, B. Bond-Lamberty, G. J. Bowen, B. S. Felzer, N. E. McIntyre, P. A. Soranno, K. L. Vanderbilt, and K. C. Weathers, 2014: Closing the data life cycle: Using information management in macrosystems ecology research. Frontiers in Ecology and the Environment 12: 24-30. doi:10.1890/120375.

Gries, C., E. Gilbert, N. Franz, 2014: Symbiota – A virtual platform for creating voucher-based biodiversity information communities. Biodiversity Data Journal 2: e1114,   
doi: 10.3897/BDJ.2.e1114.

Gries, C., D. Henshaw, R.F. Brown, R. Cary, J. Downing, C. Jones, A. Kennedy, C. Laney, M. Martin, J. Morse, J. Porter, J. Read, A. Rettig, W. Sheldon, S. Strachan, B. Zdravkovic, 2014. Sensor and sensor data management best practices released. Databits Spring 2014. http://databits.lternet.edu/2014-spring/sensor-and-sensor-data-management-best-practices-released

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Hampton, S.E., S. Anderson, S.C Bagby., C. Gries, X. Han, E. Hart, M.B. Jones, W.C. Lenhardt, A. MacDonald, W. Michener, J.F Mudge, A. Pourmokhtarian, M. Schildhauer, K.H Woo, N. Zimmerman 2015. The Tao of open science for ecology. Ecosphere 6:art120. http://dx.doi.org/10.1890/ES14-00402.1

Soranno, P, E.G Bissell, K.S Cheruvelil, S.T Christel, S.M Collins, C.E. Fergus, C.T Filstrup, J.-F. Lapierre, N.R Lottig, S.K Oliver, C.E Scott, N.J Smith, S. Stopyak, S. Yuan, M.T Bremigan, J.A Downing, C. Gries, E.N Henry, N.K Skaff, E.H Stanley, C.A Stow, P.-N. Tan, T. Wagner and K.E Webster (2015). Building a multi-scaled geospatial temporal ecology database from disparate data sources: Fostering open science through data reuse. GigaScience 4:28 doi:10.1186/s13742-015-0067-4

Read, J.S, C. Gries, E.K. Read, J. Klug, P. Hanson, M.R. Hipsey, E. Jennings, C.M. O’Reilly, L.A. Winslow, D. Pierson, C. McBride, D. Hamilton (2016). A synergistic opportunity for environmental networks: Pairing data sharing with community-built tools. Inland Waters 6, pp.637–644. DOI: 10.5268/IW-6.4.889

Hallett, L.M., Jones, S.K., MacDonald, A.A.A., Jones, M.B., Flynn, D.F.B., Ripplinger, J., Slaughter, P., Gries, C., Collins, S.L., 2016. codyn: An R package of community dynamics metrics. Methods Ecol. Evol. doi:10.1111/2041-210X.12569

Gries, C., M.R. Gahler, P.C. Hanson, T.K. Kratz, E.H. Stanley 2016 Information management at the North Temperate Lakes Long-term Ecological Research site — Successful support of research in a large, diverse, and long running project, Ecological Informatics, 36, 201–208, http://dx.doi.org/10.1016/j.ecoinf.2016.08.007.

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Collins, S. L., Avolio, M. L., Gries, C., Hallett, L. M., Koerner, S. E., La Pierre, K. J., Rypel, A. L., Sokol, E. R., Fey, S. B., Flynn, D. F. B., Jones, S. K., Ladwig, L. M., Ripplinger, J. and Jones, M. B. (2018), Temporal heterogeneity increases with spatial heterogeneity in ecological communities. Ecology, 99(4), 2018, pp. 858–865. doi:10.1002/ecy.2154

C. Gries, A. Budden, C. Laney, M.t O’Brien, M. Servilla, W. Sheldon, K. Vanderbilt, D. Vieglais 2018 Facilitating and Improving Environmental Research Data Repository Interoperability. CODATA Data Science Journal, 17: 22, pp. 1–8 <https://doi.org/10.5334/dsj-2018-022>

Book Chapters:

T.H.Nash III, C.Gries 1991: Lichens as indicators of air pollution. In: O.Hutzinger (ed.): The Handbook of Environmental Chemistry, Vol 4 Part C, 1 - 29 pp.

C.Gries 1996: Lichens as indicators of air pollution. Chapter 13. In: T.H.NashIII (ed.) Lichen Biology. Cambridge University Press, Cambridge. pp. 240-254.

C.Gries, L. Kappen 1996: Mikroklima und Wasserzustandsgrößen von Knickpflanzen in Abhängigkeit von der Exposition - Charaterisierung anhand von 2 Strahlungstagen. In: Stamm, S. von, Weisheit, K. (eds.): Ökosystemforschung an Knicks. EcoSys, Beiträge zur Ökosystemforschung Bd. 5 pp. 91 - 104. Verein zur Förderung der Ökosystemforschung zu Kiel e.V., Kiel, Germany.

R.Schoeninger, C.Gries, T.H.Nash III, 2002. Herbarium databases: creations and maintenance. pp. 291-299. In: Llimona, X, Lumbsch, H.T. and Ott, S. (eds.). Progress and Problems in Lichenology at the Turn of the Millenium - IAL 4. Berlin-Stuttgart: J. Cramer in der Gebrueder Borntraeger-Verlagsbuchhandlung.

Hanson P.C., Weathers K.C., Dugan H.A., Gries C. 2018. The Global Lake Ecological Observatory Network. In: Recknagel F., Michener W. (eds.) Ecological Informatics. pp 415-433. Springer, Cham. https://doi.org/10.1007/978-3-319-59928-1\_19.

Books:

K.Dierßen, C.Gries, H.Sasse 1985: Caricetea nigrae. Bibliographia Phytosociologica Syntaxonomica, R.Tüxen (ed.), Vaduz pp.412.

T.H.Nash, III, B.D.Ryan, C.Gries, F.Bungartz (eds.) 2002. Lichen Flora of the Greater Sonoran Desert Region. Vol. 1. Lichens Unlimited. Tempe, AZ. Pp. 532.

T.H.Nash, III, B.D.Ryan, P.Diederich C.Gries, F.Bungartz (eds.) 2004. Lichen Flora of the Greater Sonoran Desert Region. Vol. 2. Lichens Unlimited. Tempe, AZ. Pp. 742.

T.H.Nash, III, C.Gries, F.Bungartz (eds.) 2007. Lichen Flora of the Greater Sonoran Desert Region. Vol. 3. Lichens Unlimited. Tempe, AZ. Pp. 567.

Published Reports:

L.L.Jackson, L.Geiser, T.Blett, C.Gries, D.Haddow, 1996. Biogeochemistry of Lichens and Mosses in and near Mt. Zirkel Wilderness, Routt National Forest, Colorado: Influences of Coal-fired Power Plant Emissions. Open-file Report 96-295, U.S. Department of the Interior, U.S. Geological Survey. Pp162

C.Gries, 2002. Considerations for the Construction of Lichen Databases. In: Geiser, L, and R. Reynolds, Using Lichens as Indicators of Air Quality on Federal Lands. Workshop Report, USDA R6-NR-AG-TP-01-02

Ca. 150 published abstracts, about 10 of which were invited symposiums presentations.

Funding:

Gaseous deposition in canopies: The role of epiphytic lichens (EPA 1989-1992), T.H. Nash, B. Schlesinger, C. Gries

Studies on the mechanisms underlying lichen sensitivity to SO2 and O3 (EPA 1994-1997). T.H. Nash, C. Gries

Lichen fumigation study [studies on *Usnea hirta* with SO2 and NO2] (U.S. Forest Service, 1991-1992), T.H. Nash, C. Gries

Stikine area lichen tissue (U.S. Forest Service 1993-1994), L. Geiser, T.H. Nash, C. Gries

Assessing impacts of coal-fired power plants on terrestrial vegetation (lichens and mosses) in and around the Mt. Zirkel Wilderness, Routt National Forest, Northwest Colorado (U.S. Forest Service, 1994-1995, $72,351 [$2140 to ASU as matching funds for Huges grant to one undergraduate]) L. Geiser, C. Gries

Measurements of nitrogen fixation in *Lobaria oregana* after fumigation with SO2 (U.S. Forest Service, 1994). T.H. Nash, C. Gries

Sonoran Desert and Mediterranean California Lichen Flora Project (NSF 1997 – 2001)., T.H. Nash, C. Gries

Networking our research legacy: Infrastructure to document, manage, and access ecological data resources (NSF BDI 2000 – 2002), P. McCartney, T. Craig, C. Gries, C. Redman, N. Grimm

Completion of the Greater Sonoran Desert Lichen Flora Project (NSF DEB 2001-2004), T.H. Nash and C. Gries

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